

Glossary

AA – assembly area.

AAR – after action report.

abn – airborne

ACR – armored cavalry regiment.

ACRV – artillery command and reconnaissance vehicle.

aerosol — fine particles of solids or liquid suspended in air.

AD – air defense.

AG – advanced guard.

AICV – armored infantry combat vehicle.

AirLand battle imperatives – key operating requirements for success on the battlefield to ensure unity of effort; anticipate events on the battlefield; concentrate combat power against enemy vulnerabilities; designate, sustain, and shift the main effort; press the effort; move fast, strike hard, and finish rapidly; use terrain, weather, deception, and OPSEC; conserve strength for decisive action; combine arms and sister services to complement and reinforce; understand the effects of battle on soldiers, units, and leaders.

AMC – Army Materiel Command.

APC – armored personnel carrier.

arty – artillery.

ASG – area support group.

ASP – ammunition supply point.

ATGM – antitank guided missile.

attenuate — reduce the effectiveness, amount, or force of.

bispectral obscurant – an obscurant that blocks or attenuates two portions of the electromagnetic

spectrum (such as visual and infrared).

blanket – See smoke blanket.

BMNT – beginning morning nautical twilight.

bn – battalion.

BSA – brigade support area.

build-up phase – the second stage of smoke cloud production; occurs when the individual smoke streamers start to merge.

CAS – close air support.

CCA – Combat Command A.

CEOI – Communications-Electronics Operation Instructions.

CEV – combat engineer vehicle.

CFL – coordinated fire line.

CFV – cavalry fighting vehicle.

CLOS – command to line of sight.

CMO – civil military operations.

COSCOM – corps support command.

CP – command post.

CRP – combat reconnaissance patrol.

CRSTA – counterreconnaissance, surveillance, and target acquisition.

CSS – combat service support.

curtain – See smoke curtain.

DAG – division artillery group.

decon – decontamination.

deliberate smoke – characterized by integrated planning; may be used for extended periods for stationary or mobile missions.

det – detachment.

DEW – directed-energy weapon (such as high-energy microwaves, lasers).

DISCOM – division support command.

DPICM – dual-purpose improved conventional munition.

DS – direct support.

DSA – division support area.

EA – engagement area.

EENT – ending evening nautical twilight.

eff – effective.

electro-optical system — a device that detects targets by converting the electromagnetic radiation (visible, infrared, microwave) given off by the target into electric current; this current is amplified, then used to power a viewer or targeting system; this device can detect targets not visible to the naked eye.

EMP – electromagnetic pulse.

EO – electro-optical.

EW – early warning.

FA – field artillery.

far infrared – electromagnetic energy with wavelengths of 8 to 14 micrometers.

FASCAM – family of scatterable mines.

FDC – fire direction center.

FEBA – forward edge of the battle area.

FFL – free fire line.

flank wind – a wind that blows directly across a line between the

smoke objective and the smoke source.

FLIR – forward looking infrared.

FLOT – forward line of own troops.

fog oil – petroleum compounds of selected molecular weight and composition to facilitate formation of smoke by atomization or combustion; the resultant smoke is white.

FScell - fire support cell.

FSCoord – fire support coordinator.

FSE – forward security element.

FSO – fire support officer.

g – gram.

gen – generator.

GS – general support.

GSR – ground surveillance radar.

G/VLLD – ground/vehicle laser locator designator.

hasty smoke – characterized by minimal planning; used for short periods to counter enemy action or anticipated enemy action of concern to the commander.

haze – a light concentration of obscuration that restricts accurate enemy observation from the air and ground. This prevents accurate enemy target acquisition, but does not disrupt friendly operations that require limited visibility, such as river crossings. A smoke haze allows limited visibility that reduces the recognition of personnel and equipment from 50 to 150 meters.

HC – a pyrotechnic smoke-producing composition of hexachloroethane, zinc oxide, and aluminum powder employed in certain smoke munitions; has a sharp, acid odor; toxic if released in sufficient quantities in enclosed places; the smoke is cool burning when contrasted to white phosphorus.

HE – high explosive.

HMMWV – high-mobility multipurpose wheeled vehicle.

head wind – wind blowing away from the smoke objective and directly toward the smoke source.

HUMINT – human intelligence.

ICM – improved conventional munition.

IFV – infantry fighting vehicle.

IMINT – imagery intelligence.

individual streamer – the initial phase of a smoke cloud, before the streamers from the point sources merge.

inversion — an increase of air temperature with increase in height (the ground being colder than the surrounding air); this condition usually occurs on clear or partially clear nights and early mornings until about one hour after sunrise, but sometimes persists longer. When stable conditions exist, there are no convection currents and, with wind speeds below 5 knots, little mechanical turbulence. Therefore, stable conditions are the most favorable for ground-released smoke.

IPB – intelligence preparation of the battlefield.

IPE – individual protective equipment.

ir – infrared.

ITV – integrated TOW vehicle.

k – knot(s)

km – kilometer(s).

kmph – kilometer(s) per hour.

LAMPSS – large-area mobile projected smoke system.

lapse – a marked decrease of air temperature with increasing altitude (the ground being warmer than the surrounding air). During unstable or lapse conditions, strong convection currents are

found. For smoke operations, the state is defined as unstable. This condition is normally the most unfavorable for the release of smoke.

LC – line of crossing.

LD – line of departure.

LIC – low-intensity conflict.

LOGPAC – logistics package.

LRP – logistics release point.

LTOE – living table of organization and equipment.

m – meter(s).

marking smoke – smoke employed to relay prearranged communications on the battlefield. Frequently used to identify targets, evacuation points, and friendly unit perimeters.

MBA – main battle area.

mech – mechanized.

METT-T – mission, enemy, terrain, troops, and time available.

mid-infrared — electromagnetic energy with wavelength in the range of 3 to 8 micrometers.

min – minute(s).

mm – millimeter(s).

MOGAS – motor gasoline.

MOUT – military operations on urbanized terrain.

MRB – motorized rifle battalion.

MRC – motorized rifle company.

MSR – main supply route.

MTOE – modified table of organization and equipment.

multispectral obscurant — an obscurant that blocks or attenuates more than two portions of the electromagnetic spectrum (such as visual, infrared, and millimeter wave).

NAI – named areas of interest.

NBC – nuclear, biological, and chemical.

NBCC – nuclear, biological, and chemical center.

NCO – noncommissioned officer.

near infrared — electromagnetic energy with wavelengths of 0.7 to 3 micrometers

neutral – a meteorological condition that exists when conditions are intermediate between lapse and inversion; neutral conditions tending toward lapse favor production of smoke curtains; neutral conditions tending toward inversion favor smoke blankets or hazes.

night-vision device — a viewer enabling an operator to see in the dark; also called night-observation device.

NFL – no fire line.

NTC – National Training Center.

OB – order of battle.

obj – objective.

obscurant – chemical agent that decreases the level of energy available for the functions of seekers, trackers, and vision-enhancement devices.

obscuration smoke – smoke placed on or near enemy positions to minimize enemy observation both within and beyond the position area.

oil smoke – see fog oil.

OP – observation point.

OPCON – operational control.

operational continuum – the strategic environment within each theater, consisting of a variety of political, military, and economic conditions and a range of threats that result in a wide range of operations conducted within a continuum; consists of three general states: peacetime competition, conflict, and war.

OPLAN – operation plan.

OPORD – operation order.

OPSEC – operations security.

PD – proximity detonator.

phases of smoke – see individual streamer, build-up phase, uniform phase, and terminal phase.

PHOTINT – photographic intelligence.

PIR – priority intelligence requirement.

PL – phase line.

plt – platoon.

POL – petroleum, oils, and lubricants.

protection smoke – smoke produced to defeat or degrade target acquisition or guidance systems or the effects of directed-energy weapons.

PWP – plasticized white phosphorus.

quartering wind – a wind that blows between tail and flank winds, toward the smoke objective.

RAG – Regimental Artillery Group.

rd – round.

recon – reconnaissance.

red phosphorus – a form of phosphorus not spontaneously flammable.

RFL – restrictive fire line.

RISTA – reconnaissance, intelligence, surveillance, and target acquisition.

RP – red phosphorus.

RPV – remotely piloted vehicle.

RSTA – reconnaissance, surveillance, and target acquisition.

S1 – adjutant.

S2 – intelligence officer.

S3 – operations officer.

S4 – logistics officer.

screening smoke – smoke employed in areas of friendly operation or in areas between friendly and

enemy forces to degrade enemy ground and aerial observation; used to conceal ground maneuver, breaching, and recovery operations, as well as key assembly areas, supply routes, and logistic facilities.

selected area – as used in this manual, an area to be concealed by smoke.

SG – smoke generator.

SGF2 – smoke generator fog number 2; also called fog oil.

signature — the visible or audible effects produced when firing a weapon or operating a piece of equipment, such as noise, smoke, flame, heat, or debris; also, an electronic emission subject to detection and traceable to the equipment producing it.

silhouette – the outline or general shape of something contrasted against a lighter background.

SLAR – side-looking airborne radar.

smoke – a particulate of solid or liquid, part of low-vapor pressure that settles out slowly under gravity; in general, smoke particles range downward from about 5 micrometers in diameter to less than 0.1 micrometer in diameter; also means the suspension of small liquid or solid particles in air; the filling for smoke munitions, such as bombs, shells, and grenades; to produce signaling or screening smoke with any munition; generally, any artificial aerosol.

smoke blanket – a dense concentration of smoke established over and around friendly areas to protect them from visual observation from the air and visual precision bombing attack, or established over an enemy area to protect attacking aircraft from air defense fire. Blankets can also be used at night to prevent enemy-observed air attack by flare light. A smoke blanket reduces visual

recognition of personnel and equipment to less than 50 meters.

smoke control officer — the officer designated by the maneuver unit commander to coordinate and control the smoke operation.

smoke curtain — a vertical development of smoke that reduces the enemy's ability to clearly see what is occurring on the other side of the cloud; visual recognition depends on the curtain width and smoke density.

smoke generator — a mechanical device that vaporizes fog oil and releases it to condense in the air as a white smoke.

smoke haze — a light concentration of smoke placed over friendly installations to restrict accurate enemy observation and fire, but not dense enough to hamper friendly operations; density of haze is equivalent to that of light fog.

smoke munition — a device that is either discharged from a weapon or thrown and that makes smoke.

smoke point source — the point from which a smoke munition or smoke device generates an individual streamer of smoke.

smoke position — location of a smoke pot or mechanical smoke generator.

smoke pot — an expendable bucket- or pot-like ammunition that produces a dense smoke by burning a smoke mixture.

smoke projectile — any projectile containing a smoke-producing agent that is released on impact or upon bursting; also called smoke shell.

smoke shell — see smoke projectile.

smoke target analysis — the process of selecting the optimal smoke delivery system to attack specific EO systems.

smoke target development — the

process of situation development and intelligence preparations of the battlefield.

SOP — standing operating procedure.

sophisticated weapons — precision-guided munitions, equipped with infrared, electro-optical, or laser seekers/trackers with or without command links; munitions with high accuracy and, hence, high probability of kill against a target.

special smoke — an obscurant that blocks or attenuates a specific portion of the electromagnetic spectrum (such as visual, infrared, and millimeter wave).

spt — support.

sqd — squad.

stable — see inversion.

streamer — the smoke cloud formed by a single smoke source.

synchronization — the coordination of activities in time, space, and purpose to achieve maximum combat power at the decisive point.

TAA — tactical assembly area.

TAACOM — theater Army area command.

TAC — Tactical Air Command.

TAI — target areas of interest.

tail wind — a wind that blows toward the smoke objective from behind the smoke source.

temperature gradient — comparison of the air temperature at .5 meters above the ground with the air temperature at 4 meters above ground; see also inversion, neutral, and lapse.

terminal phase — that stage of a smoke cloud when the cloud has thinned out and the cover is no longer effective; see also smoke blanket.

thermal infrared — electromagnetic energy with a wavelength range of 3 to 20 micrometers.

TOC — tactical operations center.

TOE — table of organization and equipment.

TOW — tube-launched, optically tracked, wire-guided.

TPU — tank and pump unit.

TVA — target value analysis.

uniform phase — phase of smoke during which the uniformly obscuring cloud exists — the streamers have joined and breakup of the cloud has not begun.

unstable — see lapse.

UTM — universal transverse mercator.

VEESS — vehicle engine exhaust smoke system.

visibility — the distance at which it is possible to distinguish a prominent object against the background with the unaided eye.

visibility criteria — the unit commander's requirement for minimum visibility in a smoke cloud. For example, in obstacle emplacement by engineers, the maneuver brigade commander may want to conceal the engineer operation without hindering their work. He establishes a visibility criteria (such as 150 meters) for the smoke.

visible spectrum — the portion of the electromagnetic spectrum lying between 0.4 and 0.7 micrometers.

white phosphorus — a spontaneously flammable solid that burns to form solid smoke particles of phosphorus pentoxide; the phosphorus pentoxide then reacts with moisture in the atmosphere to form droplets of phosphoric acid; the dilution depends on the relative humidity.

WP — white phosphorus.